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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/727,755

12/04/2003

Gary C. Butts

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11/03/2004

BLAKELY SOKOLOFF TAYLOR & ZAFMAN  
12400 WILSHIRE BOULEVARD  
SEVENTH FLOOR  
LOS ANGELES, CA 90025-1030

EXAMINER

SAINT SURIN, JACQUES M

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/727,755	Applicant(s) BUTTS, GARY C.	
	Examiner Jacques M Saint-Surin	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 December 2003 and 26 July 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson et al. (US Patent 6,446,508) hereinafter Peterson in view of Lucas (US Patent 5,351,545).

Regarding claim 21, Peterson discloses a method of vibration testing (vibration testing of Fig. 1) comprising:

providing one or more shakers (plurality of vibrators 58, see: col. 4, line 35 and Fig. 1) having a vibratory assembly ;

fastening the one or more shakers (58) a first surface of a table (44) and mounting the table (44) on a compliant mount (30) (vibrators 58 may be mounted to the surface of the vibration table 44 in any suitable manner, at any of several locations and at any of one or more angles to surface 48 thereof, see: col. 4 , lines 37-41), see: col. 4, line 36);

placing an article (36) to be vibration tested on a surface of the table (44) (as is conventional, vibrators 58 are provided to vibrate vibration table 44 and hence product 36, see: col. 4, lines 41-43);

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and operating the one or more shakers to vibration test the article to be tested (in operation, product 36 is rigidly connected to upper surface of vibration table. Vibrators 58 vibrate vibration table 44 in a conventional manner, see: col. 4, lines 60-62. However, Peterson does not specifically suggest or disclose the shakers having a permanent magnet assembly within a sealed housing. Lucas discloses an electromagnetic vibration generator, see: col. 1, line 49. It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize in Peterson the electromagnetic vibrator of Lucas as taught above because the use of vibrators with permanent magnet is well known and commonly used in the art.

Regarding claim 22, Peterson discloses cooling element 66 is operatively connected to controller 38 by line 68, see: col. 4, lines 55-56.

Regarding claim 23, Peterson discloses the article (product 36) to be tested is fastened to a surface of the table (product 36 is rigidly connected to the upper surface of vibration table 44, see: col. 4, lines 60-61).

Regarding claim 24, Peterson discloses the article (product 36) to be tested is placed on the second surface of the table (upper surface of the table 44) opposite the first surface of the table (44).

Regarding claim 25, Peterson discloses a plurality of vibrators (58) is provided may be mounted to the lower surface 48 of the vibration table in any conventional manner, see: col. 4, lines 38-39.

Regarding claim 26, Fig. 6 shows the plurality of vibrators 58 arranged in pattern across the lower surface of the table 44.

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Regarding claims 27-31, Peterson discloses temperature sensor 40 allows controller 48 to monitor the temperature within environmental testing chamber 26 such that controller 38 selectively activates heating element 32 and/or cooling element 34 to provide a user desired temperature within environmental testing chamber, see: col. 4, lines 65-67 and col. 5, lines 1-3, see also col. 4, lines 8-21).

### ***Allowable Subject Matter***

3. Claims 1-20 are allowable over the prior art of record.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Leist (US Patent 6,131,461) discloses a flexure assembly.

Hobbs (US Patent 5,969,256) discloses a modular vibration system.

Briggs et al. (US Patent 6,044,709) discloses a vibrator.

Woyski et al. (US Patent 5,544,528) discloses high frequency vibration test fixture with hydraulic servo valve and piston actuator.

Kanemitsu et al. (US Patent 5,449,985) discloses zero power control type vibration eliminating apparatus.

Lee et al. (US Patent 5,724,893) discloses a servo-type table assembly.

Inoue et al. (US Patent 6,341,258) discloses shaking test apparatus and method for structures.

Hanse (US Patent 5,594,177) discloses a shaker table.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacques M Saint-Surin whose telephone number is (571) 272-2206. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (703) 305-4705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jacques M. Saint-Surin  
October 31, 2004



HEZRON WILLIAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800